

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 San Juan River Response - Removal Polrep



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region IX**

Subject: POLREP #9
 San Juan River Response

Shiprock, NM
Latitude: 36.8704828 Longitude: -108.7892506

To: Robert Wise, EPA Region 9

From: Kathleen Dillon, Situation Unit Leader

Date: 8/21/2015

Reporting Period:

1. Introduction

1.1 Background

Site Number:	Contract Number:
D.O. Number:	Action Memo Date:
Response Authority:	Response Type:
Response Lead:	Incident Category:
NPL Status:	Operable Unit:
Mobilization Date:	Start Date:
Demob Date:	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification:
FPN#:	Reimbursable Account #:

1.1.1 Incident Category

1.1.2 Site Description

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine has a continuous discharge of acidic mine drainage that is a significant contributor of manganese, zinc, copper, and cadmium into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

EPA Region 9 is focused on a stretch of the San Juan River extending from Farmington, NM to Mexican Hat, UT.

1.1.2.1 Location

San Juan County, NM and Navajo Reservation. The Animas River flows into the San Juan River at

Farmington, NM. After the Animas River meets the San Juan River, the San Juan River continues to flow west through parts of New Mexico, Colorado, and Utah.

1.1.2.2 Description of Threat

Mine waste water was released into Cement Creek and the Animas River. The volume of the release based on US Geological Survey (USGS) Cement Creek gauging station is estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah. The river is also used for recreational purposes, including fishing and rafting, and is an important cultural resource for the Navajo Nation.

The leading edge of the release reached the New Mexico border on August 8, 2015 where it eventually discharged into the San Juan River.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Aerial and ground reconnaissance indicates that the plume associated with the Gold King Mine release has dissipated downstream. There is no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell.

EPA Region 9 is collecting and assessing water quality from the San Juan River from La Plata Highway in New Mexico to Mexican Hat in Utah. Water sampling is occurring, and pH levels and dissolved concentrations of metals are being monitored.

1.2 Incident Objectives

1. Safety

- Provide safe working environment for all response personnel.
- Identify safety issues and monitor adherence to Health and Safety Plan
- Ensure personnel receive adequate rest and time off

2. Sampling

- Daily water and sediment sampling from 11 designated locations along the San Juan River
- Sampling from Lake Powell
- synchronize sampling data and information with Area Command

3. Water Replacement

- Work with Navajo representatives to staff water points and organize distribution

4. Public Outreach

- Coordinate public forum at which Navajo tribal leaders and community members can address Incident Command representatives.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Community outreach and sampling along the San Juan River is on hold until further notice. The Glen Canyon ICP is demobilizing.

2.1.2 Response Actions to Date

Sampling Branch

EPA Region 9 initiated water and sediment sampling efforts on August 9, 2015, to assess the impacts of the release at the Gold King Mine on the San Juan River. Starting on August 9, samples were gathered from the shoreline of the following 11 designated locations along the San Juan River:

New Mexico

San Juan River at LaPlata Highway (SJLP)
 PNM Intake (SJFP)
 San Juan River at Hogback (SJHB)
 San Juan River at Shiprock (SJSR)
 San Juan DS from Shiprock (SJDS)
 San Juan River at Four Corners (SJ4C)

Utah

San Juan River at McElmo Creek (SJME)
 San Juan at Montezuma Creek (SJMC)
 San Juan River at Bluff Bridge (SJBB)
 San Juan River at Mexican Hat (SJMh)
 McElmo Creek Tributary (MECT)

Sample totals are summarized below:

August 8 - 4 water samples (SJLP, SJFP, SJHB & SJSR)
 August 9 - 13 water samples (all sites)
 August 10 - 12 water samples, 11 sediment samples (all sites)
 August 11 - 13 water samples, 13 sediment samples (all sites)
 August 12 - 13 water samples, 13 sediment samples (all sites)
 August 13 - 12 water samples, 12 sediment samples (all sites)
 August 14 - 12 water samples, 12 sediment samples (all sites)
 August 15 - 12 water samples, 12 sediment samples (all sites)
 August 16 - 12 water samples, 12 sediment samples (all sites)
 August 17 - 12 water samples, 12 sediment samples (all sites)
 August 18 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)
 August 19 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)
 August 20 - no samples collected

There have been no requests for well samples and no requests for samples from diversion channels.

Community Relations Branch

Community outreach within the Navajo Reservation is on hold until further notice. Chapter meetings are summarized below:

8/10 - Oljeto, Aneth
 8/12 - Shiprock
 8/14 - Oljeto, Aneth
 8/15 - Hogback, Nenahnezad, San Juan, Upper Fruitland,
 8/16 - Mexcian Water, Gaadiiahi
 8/17 - No meetings conducted
 8/18 - Beclabito
 8/19 - no meetings conducted
 8/20 - no meetings conducted

Water and Feed Delivery Branch

Water tank and feed delivery to Navajo Nation is on hold until further notice. A summary of water tank delivery for use for livestock and agriculture is as follows:

8/13 - 11,000 gallons of water delivered to Hal Chita, UT, 7,000 gallons of water delivered to Shiprock, NM
 8/14 - 12 tanks (each 16,000 gallons) staged throughout Shiprock chapter
 8/15 - 13 tanks (each 16,000 gallons) staged throughout various chapters of Navajo Nation.
 8/16 - no change
 8/17 - no change
 8/18 - no change
 8/19 - water and two tanks removed from Upper Fruitland

8/20 - no change

Tanks are located at the following positions:

Shiprock Rodeo Grounds
 Gadiiaah Chapterhouse
 Teec Nos Pos Chapterhouse
 Mexican Water
 Mexican Hat
 Montezuma
 Windmill 9T-227
 Windmill 9T-225 (Red Mesa)
 Windmill 01T-509
 Windmill 02A-93
 Anneth Chapter House
 Monument Valley Welcome Center

A summary of feed delivered for livestock is as follows:

8/14 - 384 bales of alfalfa delivered to Gaadiiahi chapter

Seven bales of alfalfa are anticipated to be delivered today to the Beclabito, Hogback, Upper Fruitland, and Nenahnezad chapters.

Drinking Water System Impacts

No known water systems in Region 9 have been impacted.

Glen Canyon, Arizona ICP

Sampling started 8/14 among the following sites:

SJPL- San Juan River Plunge Line
 SJPL2 - San Juan River Plunge Line, Second Location
 SJCH -San Juan at Clay Hills
 SJIN - San Juan River In-Flow
 SJIN2 - San Juan River In-Flow, Second Location
 LPPW - Lake Powell at Piute Wash
 LPCH - Lake Powell at San Juan Arm
 LPRC - Lake Powell at Rock Creek
 LPGB - Lake Powell at Gregory Butte
 LPPC - Lake Powell at Princess Cove
 LPNC - Lake Powell at Navajo Canyon
 LPDAM - Lake Powell at Glen Canyon am

Sample totals are summarized below:

8/14 - 2 water, 1 sediment (SJCH)
 8/15 - 9 water, 6 sediment (SJPL, SJPL2, SJIN, SJIN2, LPPW, LPCH)
 8/16 - 5 water, 4 sediment (LPRC, LPGB, LPPC, LPNC, LPDAM)
 8/19 - 12 water, 10 sediment (all except SJCH)

Glen Canyon ICP OSC demobilized yesterday. Liaison Officer will demobilize today. One START contractor on scene has been integrated into the USCG/NPS 14-day expedition and will depart today with that team. The START contractor will focus sampling efforts during this trip on the San Juan River Gold King Mine related water and sediment quality influences on Lake Powell.

2.2 Planning Section

2.2.1 Anticipated Activities

All operations in Navajo Nation are on hold until further notice.

The Glen Canyon ICP is in the process of demobilization. The one START contractor out of this ICP has joined the USCG/NPS crew on scene and will embark on a 14 day float trip to collect a more robust sample set.

Feed is expected to be delivered to various Navajo chapters during this operational period and continuing in to the future.

2.2.1.1 Planned Response Activities

Sampling and public outreach on the Navajo Reservation is on hold.

2.2.1.2 Next Steps

2.2.2 Issues

On 17AUG15, at approximately 1130, seven members of the Farmington ICP response team were approached in the farmland area of Shiprock by a member of the Navajo Nation. The individual is in opposition to the response operations of Farmington ICP in regards to water and feed deliveries in the Shiprock Chapter. During the confrontation, the response personnel were threatened by being told their vehicles "would be stoned". They were also intimidated by a second vehicle that showed up in support of the individual. The response personnel listened to what the individual had to say and eventually left.

At approximately 1215, another incident occurred with the same individual at the bridge in Shiprock. There, the individual argued with 2 EPA employees and threatened to break their equipment. The individual left after a few minutes. In both cases the response personnel returned to the Farmington ICP and were unharmed.

An investigation is being conducted by the Navajo Department of Criminal Investigation.

Due to these events, for the safety of our response personnel, operations are on hold in the Shiprock Chapter.

On 19AUG15, a video was posted on social media that showed Navajo Nation President and Attorney General alleging contamination in one of the water tanks delivered by the EPA. Until further notice, responders will not sample or perform community outreach on Navajo Nation due to elevated risk to responder safety although operations are expected to resume during the next operational period.

2.3 Logistics Section

Requests from Navajo Nation for agriculture and livestock water and feed will be submitted to the Window Rock EOC via a ICS-213RR. Once signed, the request will be forwarded to the Farmington ICP where it will be processed.

2.4 Finance Section

2.4.1 Narrative

Yesterday, there was a burn rate of approximately \$6,397.39 for the ERRS contract through EQM (Environmental Quality Management, Inc.). A total of approximately \$294,168.00 is committed for upcoming operations.

START / Weston burn rate for 8/20 was estimated at \$40,000. This figure includes all overhead, activities conducted in the field, and lab analysis.

2.5 Other Command Staff

2.5.1 Safety Officer

With weather being forecasted into the 90s, hydration is of paramount importance. Additionally, much of the terrain surrounding the river is uneven and rocky. Responders should transit these areas with care.

While transiting throughout the region, responders should be mindful of the potential for contact with wildlife. Scorpions, snakes, and other similar animals raise a potential for injury.

2.5.2 Liaison Officer

Liaison officers are continuing outreach with Navajo community members and representatives of the Navajo Tribe.

2.5.3. Weather Forecast

Weather forecast for Friday, August 21

FARMINGTON AREA

Today

A mix of sun and clouds with a high of 91, low of 59 and 20% chance of precipitation. Wind coming out of the east at 12 miles per hour.

Tonight

No precipitation tonight. Partly cloudy, with a low around 58.

Tomorrow

Sunny with a high of 90, low of 58. No chance of precipitation.

3. Participating Entities

3.1 Area Command

EPA Region 9 is coordinating with EPA Regions 6 and 8, Navajo Nation, and the states of Colorado, New Mexico, Utah, and Arizona. The EPA Region 9 is working with the Navajo Nation to evaluate possible impacts to the Tribe. Potentially impacted water systems have been notified, and precautions are in place to ensure drinking water is protected. The EPA and New Mexico Environmental Department are providing assistance to community water systems and closely monitoring the situation. EPA Region 9 has contacted the Bureau of Indian Affairs regarding potential impacts to the Navajo Nation and is currently working with Navajo liaisons.

3.2 Unified Command and Cooperating Agencies

The UC includes EPA Region 9 and United States Coast Guard. Bret Moxley has assumed the role of Incident Commander.

4. Personnel On Site

EPA - 10
EPA START - 16
ERRS - 5
USCG - 8
Navajo Liaisons - 2

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epa.gov/goldkingmine

7. Situational Reference Materials

No information available at this time.